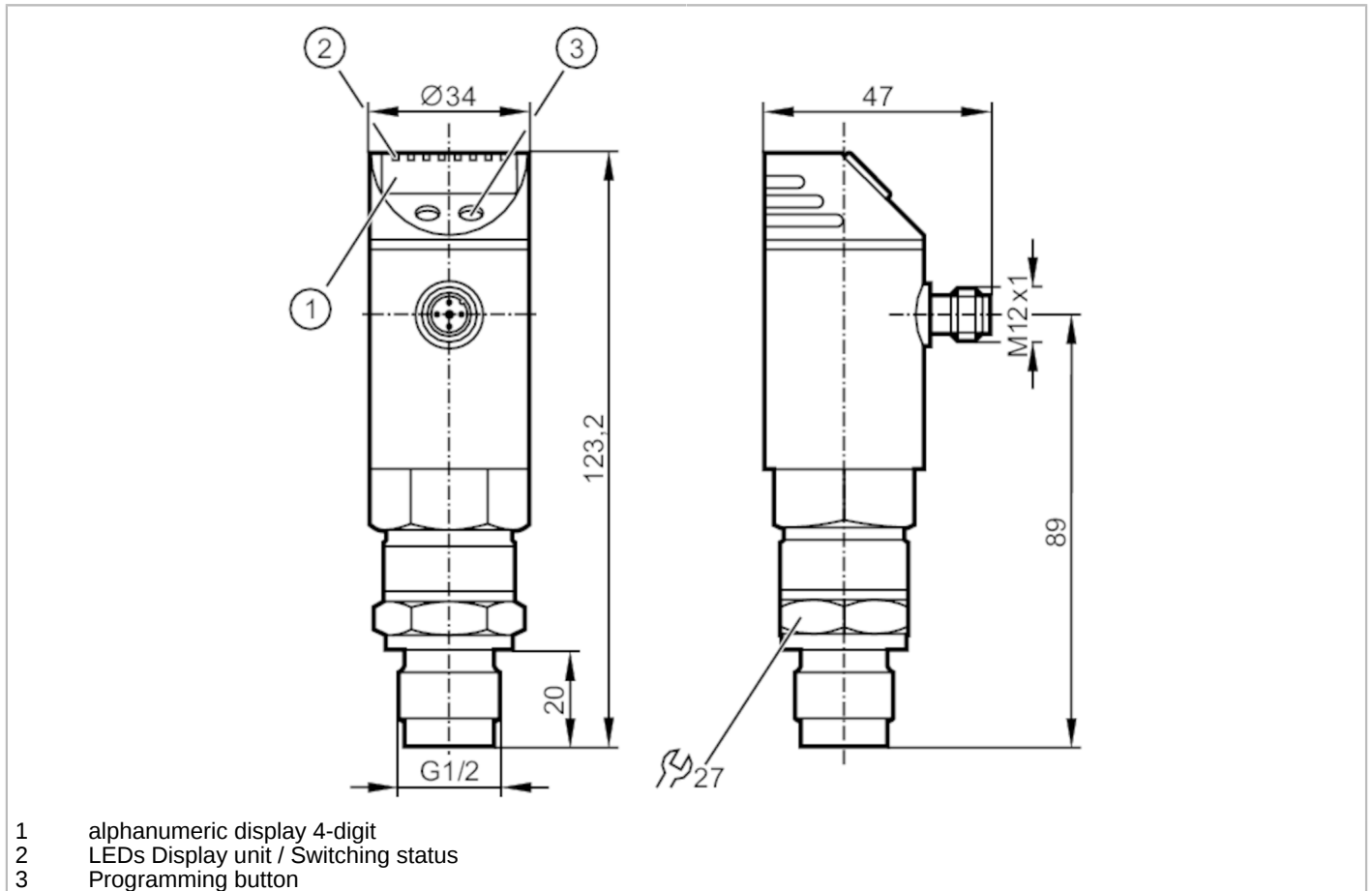


PY2033



Pressure sensor with display

PN-025-RDR12-MFRKG/US/ IV



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	-1...25 bar	-14.5...362.5 psi	-0.1...2.5 MPa
Process connection	threaded connection G 1/2 external thread		

Application

System	gold-plated contacts		
Application	Industrial flush pressure transmitters, analog PL; for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-20...125		
Min. burst pressure	200 bar	2900 psi	20 MPa
Pressure rating	100 bar	1450 psi	10 MPa
Type of pressure	relative pressure		
No dead space	yes		

Electrical data

Operating voltage [V]	18...32 DC; (to SELV/PELV)		
Current consumption [mA]	< 35		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		

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Power-on delay time [s]	0.3
Integrated watchdog	yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1
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Outputs

Total number of outputs	2
Output signal	switching signal; analog signal; (configurable)
Electrical design	PNP/NPN
Number of digital outputs	2
Output function	normally open / closed; (configurable)
Max. voltage drop switching output DC [V]	2
Permanent current rating of switching output DC [mA]	250
Switching frequency DC [Hz]	< 500
Number of analog outputs	1
Analog current output [mA]	4...20; (scalable 1:4)
Max. load [Ω]	(U _b - 10 V) / 20 mA
Analog voltage output [V]	0...10; (scalable 1:4)
Min. load resistance [Ω]	2000
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes

Measuring/setting range

Measuring range	-1...25 bar	-14.5...362.5 psi	-0.1...2.5 MPa
Set point SP	-0.8...25 bar	-11.5...362.5 psi	-0.08...2.5 MPa
Reset point rP	-0.9...24.9 bar	-13...361 psi	-0.09...2.49 MPa
Analog start point	-1...18.75 bar	-14.5...272 psi	-0.1...1.88 MPa
Analog end point	5.25...25 bar	76...362.5 psi	0.53...2.5 MPa
In steps of	0.05 bar	0.5 psi	0.01 MPa
Factory setting		SP1 = 6.25 bar	rP1 = 5.75 bar
		SP2 = 18.75 bar	rP2 = 18.25 bar
		ASP = 0.00 bar	AEP = 25.00 bar

Accuracy / deviations

Switch point accuracy [% of the span]	< ± 0,4; (Turn down 1:1)
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation [% of the span]	< ± 0,3 (BFSL) / < ± 0,6 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line; LS = limit value setting)
Linearity deviation [% of the span]	< ± 0,5; (Turn down 1:1)
Hysteresis deviation [% of the span]	< ± 0,1; (Turn down 1:1)
Long-term stability [% of the span]	< ± 0,1; (Turn down 1:1; per year)

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Temperature coefficient zero point [% of the span / 10 K]	< ± 0,25; (0...80 °C)
Temperature coefficient span [% of the span / 10 K]	< ± 0,25; (0...80 °C)

Reaction times	
Response time [ms]	< 1.5
Damping process value dAP [s]	0.01...4
Damping for the analog output dAA [s]	0.01...4
Max. response time analog output [ms]	3

Software / programming	
Parameter setting options	hysteresis / window; normally open / closed; switching logic; current/voltage output; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit; Zero point; span

Operating conditions	
Ambient temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 65

Tests / approvals	
EMC	DIN EN 61000-6-2
	DIN EN 61000-6-3
Shock resistance	DIN EN 60068-2-27 50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6 20 g (10...2000 Hz)
MTTF [years]	167.14

Mechanical data	
Weight [g]	390
Housing	tubular
Dimensions [mm]	Ø 34 / L = 123.2
Material	stainless steel (1.4301 / 304); stainless steel (1.4435 / 316L); PC; PBT; PEI; PTFE
Materials (wetted parts)	stainless steel (1.4435 / 316L)
Min. pressure cycles	10 million
Process connection	threaded connection G 1/2 external thread
Fill fluid for pressure transfer	NEOBEE (food grade, FDA compliant)

Displays / operating elements		
Display	Display unit	3 x LED, green
	Switching status	2 x LED, yellow
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit

Remarks	
Pack quantity	1 pcs.

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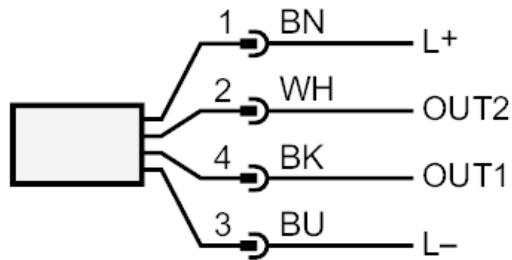
PN-025-RDR12-MFRKG/US/ IV

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection



OUT1	Switching output
OUT2	Switching output analog output
	Core colors :
BK =	black
BN =	brown
BU =	blue
WH =	white